WHAT IS CLAIMED IS:

1.    A method of communicating over a network of nodes using a plurality of broadcast channels, each channel configured to facilitate the transmission and reception of data during cycles of time, the method comprising:

dividing each cycle of time into discrete time frames;

dividing each frame into a plurality of slots;

designating one of the plurality of broadcast channels as a common bootstrap channel;

each node in the network configured to broadcast, to other nodes within one hop of said node, on the common bootstrap channel during a first bootstrap slot, slot assignment information relating to any broadcast channel;

assigning each node to communicate over a broadcast channel that is one of the plurality of broadcast channels;

each node broadcasting, on its assigned channel during a second dynamically assigned bootstrap slot, slot assignment information relating to the assigned broadcast channel to other nodes within one hop of said node and on said assigned channel; and

each node communicating according to the slot assignment information.

2.    The method of claim 1, wherein slot assignment information for communication between nodes assigned to a broadcast channel changes in time during successive frames.

3.    The method of claim 1, wherein slot assignment information for communication between nodes assigned to different channels is fixed in time during successive frames.

4.     The method of claim 1, wherein the slot assignment information includes USAP protocols.

5.     The method of claim 1, further including:

yielding a slot assignment of a first node to a second node if the first node does not have information to communicate, wherein the first and second nodes are within one hop of each other, and further wherein the second node communicates information during the slot assignment.

6.     The method of claim 5, further including:

loaning a slot assignment of a first node to a second node if the second node does not have information to communicate, wherein the second node returns the slot assignment to the first node when the second node no longer needs to use the slot assignment.

7.     The method of claim 6, further including:

one of loaning and yielding a slot assignment to a node that has insufficient time to reserve a slot assignment for communications.

8.     The method of claim 1, further comprising:

identifying a node in the network having significantly more nodes within one hop of said node than substantially all of the other nodes in the network; and

selectively withholding information about the nodes within one hop of said identified node from the other nodes in the network during the first and second bootstrap slot allocations, thereby preventing the identified node from substantially limiting spatial reuse of slot assignments

9.    The method of claim 1, further including:

determining whether any slots within the frame are unassigned; and

allowing any of the nodes to contend for use of the unassigned slots.


10.    A method of connecting communications nodes to a wireless communications network, comprising:

designating one of a plurality of communications channels as a common bootstrap channel;

each node in the network configured to broadcast, on the common bootstrap channel during a first time period, information to nodes, within one hop of said node, on any of the plurality of communications channels;

assigning each node to communicate over a communications channel that is one of the plurality of communications channels;

each node broadcasting, on its assigned channel during an allocation in a second time period, slot assignment information relating to the assigned broadcast channel to other nodes that are also assigned to said assigned broadcast channel and that are within one hop of said node; and

each node communicating on its assigned channel according to the slot assignment information.


11.    The method of claim 10, further including:

establishing a plurality of frames within a repeating time cycle;

defining a plurality of slots within each frame;

wherein the first time period is comprised of a portion of the plurality of slots that are dedicated principally for the communication of nodes on the common bootstrap channel.

12.    The method of claim 11, wherein slot assignment information for communication between nodes assigned to a first channel changes in time during successive frames.

13.    The method of claim 11, wherein slot assignment information for communication between nodes assigned to different channels is fixed in time during successive frames.

14.    The method of claim 10, wherein the slot assignment information includes USAP protocols.

15.    The method of claim 10, further including:

yielding a slot assignment of a first node to a second node if the first node does not have information to communicate, wherein the first and second nodes are within one hop of each other, and further wherein the second node communicates information during the slot assignment.

16.    The method of claim 15, further including:

loaning a slot assignment of a first node to a second node if the second node does not have information to communicate, wherein the second node returns the slot assignment to the first node when the second node no longer needs to use the slot assignment.

17.    The method of claim 16, further including:

one of loaning and yielding a slot assignment to a node that has insufficient time to reserve a slot assignment for communications.

18.   A wireless communications network, comprising:

a plurality of TDMA communications channels, wherein one of the channels is a common channel;

a plurality of nodes, each node being assigned to one of the channels;

a repeating time cycle divided into a plurality of frames;

a first plurality of bootstrap slots for communicating on the common channel, wherein all of the plurality of nodes receive slot allocation information therefrom;

a second plurality of bootstrap slots, distributed across all the channels, wherein each node receives slot allocation information from other nodes that are within one hop of said node and on the same assigned channel.